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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/809,604	03/15/2001	Peter H. Markusch	Mo5944/MD-00-108-PU	4995

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BAYER POLYMERS LLC
100 BAYER ROAD
PITTSBURGH, PA 15205

EXAMINER

SALVATORE, LYNDIA

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 04/24/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/809,604

Applicant(s)

MARKUSCH ET AL.

Examiner

Lynda M Salvatore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 19-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 19-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-14 and 19-21 drawn to polyurethane/geotextile composite classified in class 428, subclass 423.1+.
 - II. Claims 15-18, drawn to device for making an absorbent fibrous web, classified in class, 427 subclass various.

2. The inventions are distinct, each from the other because:

The inventions of Group I and Group II are related as process of making and product made and are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the geotextile may be made by another materially different process such as coating the geotextile with a layer of the polyurethane composition rather than spraying.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Carolyn Sloane on February 12th 2003 a provisional election was made without traverse to prosecute the invention of a polyurethane composition claims 1-14 and 19-21. Affirmation of this election must be made by applicant in replying to this Office action. Claims 15-18 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

5. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

OK
6. Claim 11 is indefinite because the recitation of "does not include a low molecular weight diol and triol contradicts the limitations set forth in part b of claim 1, which does claim an isocyanate reactive composition comprising a "low molecular weight diol or triol". Therefore, it is unclear to the Examiner whether the Applicant is claiming a polyurethane composition comprising a low molecular weight diol or triol. Thus, this claim will not be examined on the merits.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

W/draw
8. Claims 1-6, 8-10, and 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Adam et al.,

The patent issued to Adam et al., discloses a ditch liner formed by impregnating a liquid mixture into a porous blanket, wherein the liquid mixture comprises the reaction of a polyisocyanate, a catalyst, a polypropylene oxide adduct of an alkanolamine, a propylene oxide adduct of a low molecular weight polyol having 3 to 8 OH groups, and a propylene oxide adduct of a low molecular weight diol (Abstract and Column 3, 64-Column 4, 9). Adam et al., teaches

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the combination of a polymethylene poly(phenylisocyanate) having an NCO content of 31.6% by weight and a viscosity of 200 mPa.s, 10 parts of a propylene oxide monethanolamine adduct having a molecular weight of 480, a propylene oxide adduct of glycerin having a molecular weight of 670, and a propylene oxide adduct of propylene glycol having a molecular weight of 2000 (Column 4, 55-60). Adam et al., further teaches the use of organometallic catalysts such as tin within the claimed amount range (Column 4, 36-43 Column 4 - Example). Claims 1 and 4 of Adam's et al., teach the NCO: OH equivalent ratio limitations set forth in claims 3 and 4.

Claim Rejections - 35 USC § 102/103

9. Claims 1-6, 8-10 and 21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Markusch et al., US 5,558,917.

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The patent issued to Markusch et al., teaches a polyurethane composition comprising an aromatic poly(phenylisocyanate) prepared in a mixture with at least one low molecular weight organic compound having an average functionality ranging from 1.0 to 3.0 and at least one high molecular weight polyol with 1 to 12 isocyanate reactive hydrogen atoms wherein the molecular weight ranges from 500 to 5000 (Column 3, 25-60 and Column 5, 9-20). The aromatic isocyanate generally have a viscosity of less than 500 mPa.s at 25 ° C and can have a isocyanate group content from 20-33 % (Column 2, 58-60 and Column 4, 35-58). Suitable low molecular weight polyols incorporated into the isocyanate as urethane adducts, include monoalcohols, diols, and triols, wherein the urethane content of the polyisocyanate is from about 2 to 6%

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(Column 3, 60-65 and Column 4, 26-34). Suitable high molecular weight polyols include polyethers and polyesters (Column 5, 10-20). The polyurethane composition preferably comprises an organometallic catalyst such as tin, lead or iron in an amount ranging from .001 to about 10 parts per 100 parts of isocyanate-reactive material (Column 7, 50-55 and Column 8, 39-45). Markusch et al., teaches that water may also be used as a blowing agent in an amount ranging from .1 to 10 weight percent (Column 9, 15-20). Markusch et al., teaches that the polyurethane composition may be applied as a uniform layer to a variety of substrates such as non-wovens and may be used in such applications as roofing membranes, sound dampening foams, and carpet padding (Column 9, 53-64).

The recited intended use of a geotextile in the preamble is not given patentable weight at this time since the prior art meets the structural and chemical limitations. The reference teaches applying the polyurethane composition as uniform layer to a variety of substrates. As such, since the Applicant fails to set forth the structure limitations of the geotextile it is the position of the Examiner that a non-woven comprising said polyurethane coating could function in the desired capacity of a geotextile. The burden is upon the Applicant to evidence the contrary.

With regard to the NCO:OH equivalent ratio limitations set forth in claims 2-4, although Markusch et al., does not explicitly teach the claimed ratio's, it is reasonable to presume that said property is inherent to the invention of Markusch et al. Support for said presumption is found in the use of like materials (i.e., poly(phenyloisocyanate), high molecular weight polyols and low molecular weight triols having the desired reactive OH groups), which would result in the claimed property. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594

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In addition, the presently claimed NCO:OH equivalent ratio's would obviously been present once the Markusch et al., product is provided. *In re Best*, 195 USPQ 433

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Markusch et al., US 5,558,917 as applied to claim 1 above, and further in view of Markusch et al., US 6,187,982.

Markusch et al., 917' does not expressly disclose using polyoxypropylene polyether, however, Markusch et al., 982' teaches the use of polyether polyols including polymers of propylene oxide. Markusch et al., 982' teaches that these specific polyether polyols are used to assure adequate molecular weight in the permanently tacky elastomer (Column 6, 5-10). Therefore, motivated to provide an elastomer having an adequate molecular weight it would have been obvious to one having ordinary skill in art at the time the invention was made to use the polyether polyol taught by Markusch et al., 982' as the polyether polyol in the invention of Markusch et al., 917'.

12. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Markusch et al., US 5,558,917 as applied to claim 1 above, and further in view of Turner et al., US 4,853,054.

Markusch et al., fails to teach the amount of polyurethane composition applied to the substrate, however, the patent issued to Turner et al., teaches a polyurethane composition also

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suitable for carpet backings, and other various substrates such as non-wovens, scrims, and wovens (Title and Column 7, 25-35). Turner et al., teaches applying a uniform layer polyurethane composition to the substrate in amount ranging from 5 to about 500 ounces per square yard, which is equivalent to .17 kg/m² to about 16.95 kg/m².

130. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Markusch et al., US 5,558,917 as applied to claim 1 above.


Markusch et al., does not expressly state the thickness of the polyurethane coated substrate however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the thickness of the polyurethane coated substrate as a matter of the intended final use. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 703-305-4070. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700